

REMARKS

Amendments

New claims 21-28 are directed to further aspects of applicants' invention, specifically the individual different cations recited in independent claim 1. See, e.g., page 2 of the specification.

Election

In the Office Action the Examiner again reformulates the prior restriction and election of species. In this newest version of the Restriction, the subject matter of claim 1 is divided into 8 groups, depending on the cation group K. See pages 3-6 of Office Action where Groups I-VIII are identified. In addition, regardless of which of Groups I-VIII is elected, the Office Action further requires that a specific compound be designated as the elected species.

In response to the Restriction applicants elect Group V wherein group K is an imidazolium cation. With respect to the election of species requirement, applicants select 1-ethyl-3-methylimidazolium tris(pentafluoroethyl)-trifluorophosphate as the elected species (this species was previously elected in the Election filed March 6, 2003). See Example 1 and claim 13. However, the Restriction is respectfully traversed.

Firstly, the equities clearly favor withdrawal of the Restriction. It is simply extremely unjust for the Patent and Trademark Office to first maintain an improper Restriction, then force applicants to go through the effort and cost to Petition the improper Restriction, then acknowledge that the Restriction was improper, and finally then attempt again to restrict the subject matter to be examined, all the while further delaying examination of applicants' invention and eroding away applicants' available patent term.

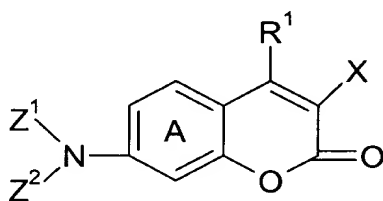
Secondly, after having already prosecuted the applications through two Office Actions on the merits, there seems little if any burden imposed in examining the full scope of applicants claimed genus. If the entire scope can be examined without serious burden, then "the examiner must examine it on the merits." MPEP §803.

But, more importantly, the Restriction is improper. A Restriction is improper if it seeks to restrict within a claim. MPEP §803.01, entitled "Restriction - When Proper,"

states that "[i]nsofar as the criteria for restriction practice relating to Markush-type claims is concerned, the criteria are set forth in MPEP §803.02." Section 803.02, in turn, states the proper procedure for examination of a Markush claim, such as that herein, which recites a genus encompassing a variety of compounds. The MPEP states that, following election, the Markush-type claims will be examined fully with respect to the elected species *and further to the extent necessary to determine patentability*. The MPEP states that "should no prior art be found that anticipates or renders obvious the elected species, the search of the Markush-type claim *will be extended*. If prior art is then found that anticipates or renders obvious the Markush-type claim with respect to a non-elected species, the Markush-type claims shall be rejected..." [Emphasis added.]

In the present case, it appears that the Examiner wishes to restrict within a single claim and thus reject the claim on the basis of an allegedly improper Markush group. If this is the Examiner's intention, then the Examiner should present an Improper Markush rejection, rather than attempting to restrict within a claim and avoid the established practice for examining Markush claims as set forth MPEP §803.02.

Regarding Markush claims the CCPA's decision in *In re Harnisch*, 206 USPQ 300 (CCPA 1980) is relevant. In *Harnisch*, the claimed genus of compounds was defined by the following formula:



In this formula, Z¹ was defined as being H, alkyl, cycloalkyl, aralkyl, aryl or a 2- or 3-membered alkylene radical connected to the 6-position of the coumarin ring. Z² was defined as being H, alkyl, cycloalkyl, or a 2- or 3-membered alkylene radical connected to the 8-position of the coumarin ring. In addition, Z¹ and Z² together with the nitrogen atom could represent an optionally benz-fused heterocyclic ring which "like ring A and the alkyl, aralkyl, cycloalkyl, and aryl radicals mentioned, can carry further radicals customary in dye-stuff chemistry."

Thus, as can be seen, the definition of Z^1 and Z^2 encompass a very wide variety of structures including various nitrogen containing heterocyclic structures such as morpholinyl, piperidyl, piperazinyl, etc. This claim was rejected by the Patent Office on grounds of an improper Markush grouping. Yet, the Court in *Harnisch* reversed the improper Markush rejection noting that the claimed compounds were dyes and that the subgenus claimed was not repugnant to scientific classification.

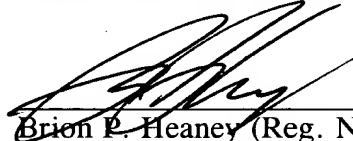
In the instant case, the compounds of applicants claimed genus are all salts having an anion of the formula $[PF_x(C_yF_{2y+1-z}H_z)_{6-x}]^-$. While the claimed genus encompasses compounds exhibiting various heterocyclic cation structures, no rationale is presented in the Office Actions as to why this genus of compounds would be repugnant to scientific classification. In fact, the prior art of record shows that those skilled in the art commonly group these cation structures together. See claim 1 and the formulas at column 2 of Koch et al. (US '602), the only prior art cited against applicants' claims. In these disclosures, the cation of the ionic liquid can be a pyridinium ion, a pyridazinium ion, pyrimidinium ion, a pyrazinium ion, an imidazolium ion, a pyrazolium ion, a thiazolium ion, an oxazolium ion, or a triazolium ion.

See also Westman (US 6,565,130) which describes the salt A^+B^- , wherein examples of the cation A^+ include pyridinium, pyridazinium, pyrimidinium, pyrazinium, imidazolium, pyrazolium, thiazolium, oxazolium, isoxazolium, and triazolium ions. See column 3, line 61-column 4, line 10. Michot et al. (US 6,365,301) also describe ionic compounds in which the cation can be selected from imidazolium, triazolium, thiazolium, oxazolium, and pyridinium ions. See column 4, line 29-column 5, line 10. Thus, in this filed of technology, it is clearly not repugnant to scientific classification to group the cations of applicants' group K together.

In view of the above remarks, withdrawal of the Restriction Requirement is respectfully requested.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Brion P. Heaney', is written over a horizontal line.

Brion P. Heaney (Reg. No. 32,542)
Attorney for Applicant(s)

MILLEN, WHITE, ZELANO & BRANIGAN, P.C.
Arlington Courthouse Plaza I
2200 Clarendon Boulevard, Suite 1400
Arlington, VA 22201
(703) 812-5308
Internet Address: heaney@mwzb.com

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